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ABSTRACT

Briefed are the planning, the committee work, and the supportive legislation which followed the conception of Ohio's gifted program. The procedural methodology used by the Division of Special Education to encourage the initiation of programs and to disseminate information of research, monographic contributions, and demonstration results is discussed. Historical treatment is given the following subjects: statewide coordination of advanced placement; specific demonstration projects emphasizing acceleration, subject and general advanced placement, counseling, enrichment, identification, special classes, individual programing in heterogeneous grouping, work-study for underachievers, and the ungraded approach; surveys of literature, evaluations of projects and procedures, and studies of costs; descriptions of six controlled research studies; and conclusions regarding the Department of Education's role in identification, selection, programs, and supervision. An overview of current provisions includes methods of identification and selection, quantitative comparisons with programs in other areas of special education, demographical correlates, program costs, availability of child-study services, administrative and curricular provisions, extent of parental involvement, student and program evaluation, problems encountered, and conclusions and implications. (WG)

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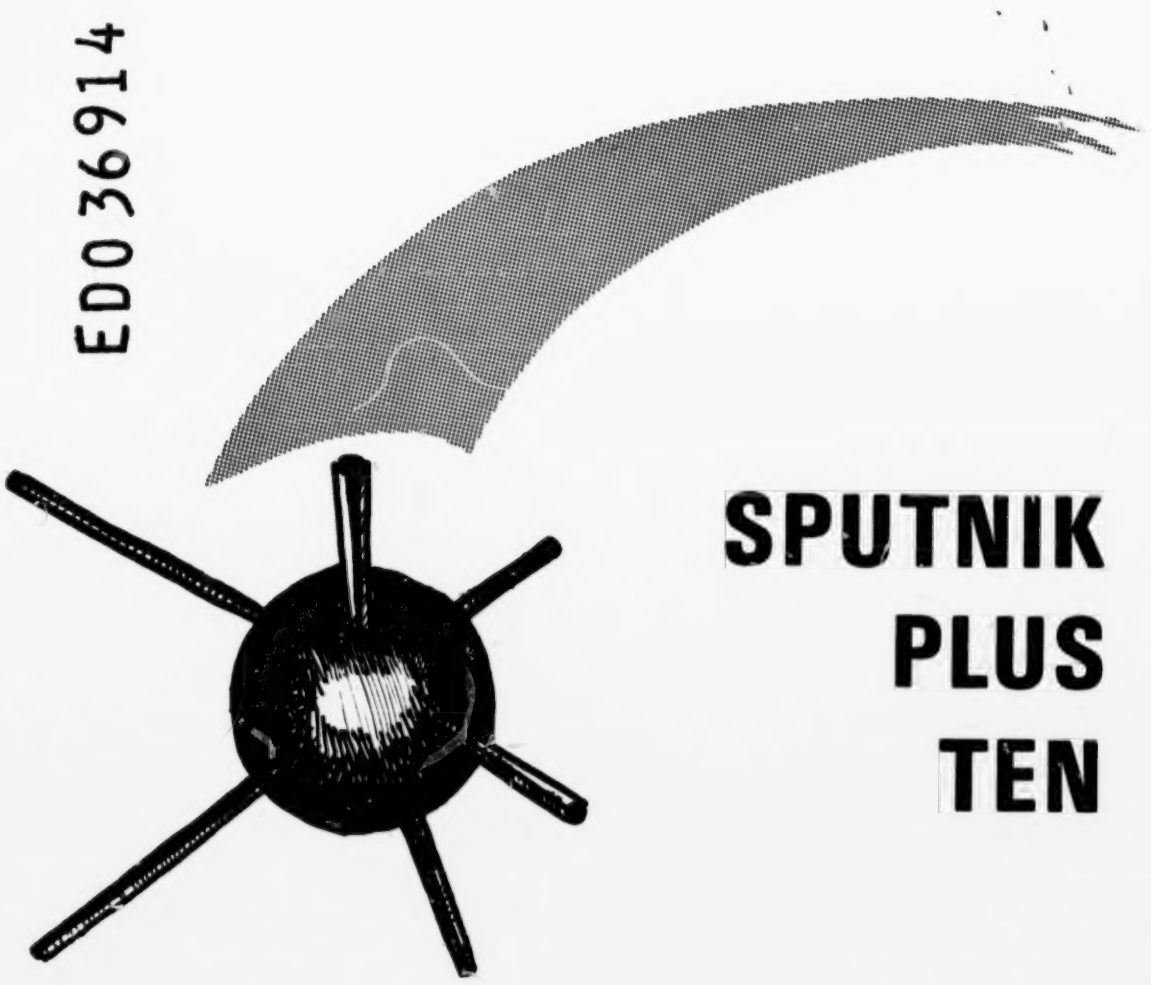

SPUTNIK PLUS TEN

OHIO'S PROGRAM FOR THE GIFTED
1957–1967

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COLUMBUS, OHIO
1969

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SPUTNIK PLUS TEN

OHIO'S PROGRAM FOR THE GIFTED
1957–1967

GARVIN G. GLOSS
Educational Consultant
Academically Gifted

MARTIN ESSEX
Superintendent of Public Instruction

FRANKLIN B. WALTER
Assistant Superintendent of Public Instruction

S. J. BONHAM, Jr., *Director*

Division of Special Education
State of Ohio
Department of Education
3201 Alberta Street
Columbus, Ohio 43204

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PREFACE

The Ohio program for the academically gifted has been in operation since 1959. Dr. Thomas Stephens and Mr. Arthur Gibson, former Educational Consultants with the Division of Special Education were instrumental in the initiation of research and demonstration projects which gave needed direction and perspective in the vast domain of education of gifted children in Ohio. Without their efforts the course of history of the gifted in Ohio might not have achieved its current level.

This two part publication contains 1) the history and development of programs for the gifted and 2) a survey of current provisions. The writer wishes to express his appreciation to the former consultants for their assistance in compiling developments in the history of gifted in Ohio: Dr. Reginald Jones, Professor, Department of Psychology and Education, the Ohio State University for technical advice; Mr. F. P. Gross, Educational Administrator, Division of Special Education, for editorial help and technical assistance with the survey; Mr. William Vassar, Consultant for the Gifted, Connecticut Department of Education, for his critical analysis of the first draft; and Mrs. Marilyn Bogner, Secretary, Division of Special Education, for the time devoted to the clerical aspects of the survey and customary typing duties.

Appreciation is also expressed to the school administrators who supplied the necessary data for the survey. Without their cooperation this study could not have been completed.

Part I

HISTORY AND DEVELOPMENT OF GIFTED PROGRAMS IN OHIO

INTRODUCTION

With the orbiting of Sputnik I on October 4, 1957 a new decade of interest in education for the academically able was unleashed with the impact not unlike the final thrust of the mighty engines of its launching rocket. Throughout the world serious concern for quality education was generated out of the necessity to confront the challenges of the rapidly changing technology of what was to become the "space era." The shortages of scientific and professional personnel may well have been the primary factor in the reawakened impetus toward education of youth with the greatest potential—the gifted. It has become increasingly evident that we must identify this potential early and then provide the best possible educational program if the gifted are to fulfill their promise.

During this decade interest within state departments of education for professional staff to devote full or part-time responsibility in programing for gifted children rose appreciably. In 1957 only a handful of state consultants had responsibilities for gifted programs. By 1962, when the National Association for State Directors for Programs for the Gifted was organized, twelve states and Puerto Rico had full-time consultants for the gifted. By 1967, the end of the decade, thirty states and territories had full or part-time personnel involved in gifted programs.

In the late 40's and early 50's the "gifted movement" was fostered by monumental work of Lewis Terman. In Ohio, this movement was instrumental in state-wide action for the academically gifted which dates back to the Ohio Commission on Children and Youth. Recommendations in a 1951 report of the Committee on Special Education included the following:

- Much research is needed to solve many problems in educating the gifted—problems of social and emotional ad-

justment—problems relating to the fuller development of special talents.

- Citizens must be made aware of the seriousness of the waste of intelligence and urged to take action in preventing it. This action might well be support of a program subsidized by the state for the education of the gifted.
- The state government should appoint an educator qualified to confer with superintendents interested in and desirous of making provisions for the gifted and to recommend and coordinate a program to meet their needs.

Also during this period, a state-wide committee under the chairmanship of Dorothy Norris, well-known for her leadership in the Cleveland Major Work Program, surveyed a large sample of Ohio's school districts. The survey indicated that few districts provided for gifted children beyond "enrichment" activities.

Legislative action was not forthcoming until 1959 when the 103rd Ohio General Assembly amended Section 3323.02 R.C. to develop special programs of education for academically gifted children. It authorized the state board of education to "employ competent persons to analyze and publish data, promote research, advise and counsel with boards of education, and encourage the training to teachers in the special instruction of gifted children." It also authorized the state board of education to provide financial assistance out of any funds appropriated for this purpose to boards of education for developing and conducting experimental programs of education for academically gifted children."

The 104th General Assembly allocated $225,000.00 for the two year period 1961-63. This grant made it possible to continue the research and service program which was started two years previously. By the time the 105th General Assembly had convened in 1963, findings from the early demonstration projects were completed.

A state-wide advisory committee to the program for the academically gifted was organized shortly after passage of H.B. 754 in 1959. Its role was to provide advice to those responsible for the program. The committee, under the chairmanship of Dr. Harold J. Bowers, Assistant Superintendent of Public Instruction, studied the needs of teacher education and the secondary school's role in relation to the gifted. Suggestions and advice were requested from the group prior to approval of demonstration projects.

The committee culminated its activities in 1962 by developing recommendations to the state department of education.

The recommendations included definition and selection criteria, educational programs, minimum standards, and financial assistance provisions in the event that categorical legislation would be forthcoming.

Although that hope was never realized appropriations which were allocated during this decade were instrumental in providing the initiation of research and demonstration projects, status studies, teacher education and publications, and consultant services within the schools in Ohio.

Full-time educational consultants for the academically gifted programs have been employed since 1960. The consultants for Ohio's program have been:

Thomas Stephens — July, 1960 — September, 1964
Arthur Gibson — September, 1962 — July, 1965
Garvin Gloss — June, 1966 — September, 1968

The following pages are a resume of the effects of the consultants, advisory committee members, and interested school personnel without whose cooperation and support the gifted program could not have moved forward.

CHAPTER I

DISSEMINATION OF INFORMATION CONCERNING THE GIFTED

During the decade of "Sputnik plus ten" there has been a concerted effort to provide teachers and other educators with information about the education of gifted children. A three pronged approach during this period has been, 1) consultative services to school districts and professional organizations, 2) initiating workshops and funding or partial funding of gifted children's professional organization meetings, and 3) dissemination of information through publication of research and demonstration efforts and monographs of contributions of eminent authorities in the area of the gifted.

Consultant Services

The personnel of the gifted programs served as consultants, quest speakers, and panel members for numerous in-service educational conferences at the local, county and state levels. In the spring of 1963, the two staff members concerned with the programs for the gifted attended the meeting of the Council of State Directors of Programs for the Gifted in Pittsburgh, Pennsylvania. The meeting was sponsored by the United States Office of Education for the purpose of promoting programs for gifted children throughout the fifty states. Ohio was one of thirteen states that had at least one person having full-time responsibility for gifted programs at the state level. The program of the meeting was a workshop conference in which members were given the opportunity to discuss and evaluate the programs of the various states.

During 1967 the consultant served as a group leader at the National Association for Gifted Children Convention. A paper entitled, "Correlates of School District Provisions for Gifted Children: A Statewide Study" was co-authored and read by the consultant at the International Council for Exceptional Children Convention in 1968.

Workshops and Conferences

Arrangements were made with teacher education institutions for workshops and conferences. During the first three years, four-

teen workshops and conferences were made available for teachers, supervisors, and other professional educators. These were held at the five state universities.

During this period conferences were held in conjunction with other professional groups. The program for the academically gifted has sponsored speakers for the Division of Elementary and Secondary Education's annual instructional conference. Five regional meetings were also held in cooperation with the North Central Association of Secondary Schools and Colleges.

In addition to these in-service programs for teacher groups, a five week workshop was conducted at Bowling Green State University by the educational specialist for teachers of gifted children or teachers planning to work with gifted children. A demonstration class composed of twenty gifted children ages 12-14 from the Bowling Green City School was held in conjunction with the workshop. The demonstration served the dual purpose of providing an enriched summer program for the children and the opportunity to demonstrate effective teaching techniques for the workshop teachers.

Several nationally-known gifted child educators were sponsored by the Programs for the Gifted to speak to teachers' groups. Among these were Dr. James Gallagher, University of Illinois; Dr. Robert DeHaan, Hope College; Dr. Edward Frierson, Peabody State Teachers College; Dr. Louis Fliegler, Kent State University; Dr. Willard Abraham, Arizona State University; and Dr. Walter Barbe, Kent State University.

Publications

The third approach to teacher education was the publication and dissemination of printed materials. Fourteen booklets or monographs have been printed and numerous reproduced materials, particularly teacher's guides in subject areas, have been distributed to interested educators in Ohio and throughout the nation. All publications currently in print are available without cost.

Mimeographed Reports

First Progress Report, Project for Academically Gifted Children, 1959-60.

Second Annual Report, Ohio's Academically Gifted, 1960-61.

A Follow-Up Study of Intellectually High Average Students Admitted into an Academically Gifted Program on the Basis of

High Achievement (1960). A report based upon the data collected for the Cuyahoga Falls City School's Study.

Printed and Reproduced Publications

A Look at Ohio's Gifted (1962)—49 pages. A report of a survey of gifted programs in Ohio schools and a summary of current trends and issues.

A Plan for Accelerating the Mathematics Program for the Academically Talented in Secondary Schools (1961)—42 pages. A bulletin developed as an outgrowth of a demonstration project in the Cleveland City Schools.

A Selected and Annotated Bibliography on the Gifted (1960)—172 pages. An extensive bibliography compiled at the Ohio State University by Viola Cassidy and Mame Flesher.

Acceleration and the Gifted (1963)—73 pages. Provides a framework for thinking about various forms of acceleration for the gifted child. In addition, reports of various projects using acceleration to provide for gifted children are included.

**Advanced Placement in Ohio* (1964)—18 pages. A series of answers to the most commonly asked questions concerning the Advanced Placement Program.

**Arithmetic—Enrichment Ideas for Grades 1, 2, 3* (1962)—24 pages.

**Arithmetic—Enrichment Ideas for Grades 4, 5, 6* (1962)—44 pages. These booklets contain ideas and exercises developed by arithmetic teachers in the Cincinnati Schools for the academically gifted children.

As If the Chart Were Given (1963)—43 pages. A report of the Portage County demonstration project with gifted elementary school children.

Attention to the Gifted, A Decade Later (1962)—61 pages. A publication issued in cooperation with the Ohio Association for the Gifted. It contains twelve articles by leading educators on selected areas of education for the gifted.

Educating Tomorrow's Leaders (1961)—156 pages. A monograph containing speeches and materials emerging from summer workshops on teaching the gifted.

**Enrichment—Classroom Challenge (1962, Revised* 1966)—124 pages. Contains enrichment ideas and activities for the classroom teacher. It encompasses enrichment in the elementary classroom and in secondary school subject matter areas. Sections on community responses, instructional media, letter exchange and selected bibliography are also included.

One in a Thousand (1964)—96 pages. A report of the research project conducted at Kent State University. This report presents a comparative study of the highly and moderately gifted children in Ohio schools.

Pathways to Progress (1963)—156 pages. A monograph presenting a series of research studies conducted in various Ohio schools and colleges.

Report on a Plan for Strengthening and Evaluating the Advanced Placement Program in English (1962)—56 pages. A bulletin developed as an outgrowth of a demonstration project in the Cleveland City Schools.

Seminars for the Gifted in Ohio High Schools (1962)—95 pages. A monograph describing the organizational and instructional aspects of 18 seminar programs in Ohio high schools.

Teachers' Guides—American History for the Academically Talented and Advanced Placement American History (1963)—165 pages.

Teachers' Guides—World History for the Academically Talented and Advanced Placement World History (1963)— pages. Teachers' guides developed by the teachers participating in the Coordinated Academically Talented — Advanced Placement Program in the Cleveland City Schools.

**Teachers' Guide—Seventh Grade Mathematics for the Academically Talented* (1964)—128 pages.

**Teachers' Guide—Eighth Grade Algebra for the Academically Talented* (1964)—112 pages.

Teachers' Guide—Ninth Grade Plane and Solid Geometry for the Academically Talented (1964)—284 pages.
Teachers' guides developed as a part of the Cleveland Accelerating Mathematics Project.

*_The Challenge of the Highly Gifted_ (1965)— 99 pages. A report of the Summit County demonstration project with gifted elementary school children.

Third Annual Progress Report (1963)—65 pages. Presents the current status of all demonstration and research projects with a brief summary of each. It also contains findings and recommendations from the projects and the State Advisory Committee.

* Publications currently available are underlined.

CHAPTER II

ADVANCED PLACEMENT PROGRAM COORDINATION

The Advanced Placement Program is a method used for both enrichment and acceleration in the secondary schools. The program attempts to provide the student an opportunity to study subject areas of interest in depth. By experiencing varying methods and approaches to learning it promotes the means of advancement to higher level college courses for the high school student prior to formal college entrance.

In Ohio, there has been a substantial effort to extend the Advanced Placement Program through cooperative endeavors of colleges and school systems. The initiative came from the Inter-University Council, composed of the presidents of the six state-supported institutions of higher learning. With the support of a grant from the Fund for the Advancement of Education, the Ohio Council on Advanced Placement was formed in 1959. Composed of representatives from a number of private and public colleges and universities and public and independent secondary schools, the Council undertook a short-term program to stimulate participation by institutions of higher learning and high schools throughout the state. The Council was originally conceived as a one or two year venture. It was felt that this would provide sufficient time for stimulation of the program in the state.

In May 1962, the program became the coordinating function of the Division of Special Education, Ohio Department of Education. In the fall of 1963, the former Coordinator of Advanced Placement in Ohio under the Ohio Council, arranged for the Administrative Assistant and the Educational Specialist in the area of the academically gifted to visit the Advanced Placement offices in New York prior to assuming this responsibility. At his request visits were also made to Educational Testing Service in Princeton, New Jersey, and to the New York Department of Education in Albany, New York. In this way, a comprehensive background on the functioning of the Advanced Placement Program and ideas for coordination of the program were obtained.

After assuming this responsibility, the Division jointly sponsored a conference on Advanced Placement Mathematics in the summer of 1963, answered numerous requests for information, and arranged for speakers for various groups.

The conference was jointly sponsored by the College Entrance Examination Board, the Division, and the Akron City Schools. The conference was designed to familiarize the colleges with the type of courses that were provided by the high schools to prepare the students for the Advanced Placement Examinations, as well as to acquaint the high school teachers and administrators with the make up of the examinations and grading policies.

Two projects for Advanced Placement were planned for the 1963-64 school year. These were: 1) a comprehensive study of Advanced Placement in Ohio, including data from secondary schools, colleges, and the student participants; 2) an information brochure describing Advanced Placement and the role of the Division to be distributed to all secondary school and colleges in Ohio.

Secondary school systems were encouraged to take advantage of the provisions of the Advanced Placement Program. Teachers' Guides for American History and European History were developed for the Advanced Placement classes in those areas. These guides, containing a recommended basic library for those schools that were inaugurating a program of this type, were distributed to all Ohio secondary schools.

During the spring of 1964, the informative brochure entitled, *Advanced Placement in Ohio,* was developed in cooperation with the Ohio Council on Advanced Placement. This brochure answered many of the questions raised by teachers, administrators, parents and students concerning the Advanced Placement Program.

The cooperative efforts of the local schools, colleges and universities, Advanced Placement Staff, and Division Staff had undeniably resulted in a rapid program growth in Ohio. The following table indicates the growth which propelled and has maintained Ohio within the top five states in the National Advancement Placement Program.

	1959	1960	1961	1962	1963	1964	1965	1966	1967
Secondary Schools	23	46	88	111	122	134	151	157	171
Candidates	331	662	1043	1104	1431	1874	2191	2452	2769
Examinations	427	837	1217	1396	1831	2397	2839	3143	3504

By the fall of 1967 the Advanced Placement Program in Ohio schools had evolved into a program which was concentrated largely in the metropolitan areas. Although 18 percent of the high schools in the state had some type of programing, 52 percent of the programs were found in the eight major cities and, more specifically,

75 percent concentrated in the metropolitan areas of Cleveland, Columbus, Cincinnati, Toledo, Dayton, Akron, Canton, and Youngstown.

An obvious unmet need existed to expand programing into the smaller high schools in cities, local school districts and exempted villages. Through the cooperative efforts of the Midwest Regional Office of the College Entrance Examination Board, the Ohio Association of Secondary School Principals, and the Ohio Department of Education, an Invitational Conference on Advanced Placement was conducted at Otterbein College during the 1967-68 school year. Over 100 administrators, teachers, curriculum and guidance personnel attended the conference. It focused upon administrative aspects and dealt with problems of initiating and maintaining programs within the smaller school.

It is our hope that concerted attempts to promote program development through meetings of this nature, publications, and consultative functions will continue to foster development of the Advanced Placement Program in Ohio schools.

CHAPTER III

DEMONSTRATION PROJECTS

During this decade fifteen experimental projects were completed. A variety of approaches were attempted at elementary, junior, and senior high school levels. Projects such as these are essential to the improvement and development of programs for gifted children. Although the majority of projects were of one-year duration several were funded for longer periods. A resume of these projects follows, with the year of completion found in parentheses following the title.

Accelerating the Mathematics Program For the Academically Talented in Secondary Schools (1962)

The Cleveland Public Schools conducted an accelerated mathematics project for the academically talented student which was designed to augment horizontal enrichment with vertical acceleration. During the duration of the year 999 pupils in thirty-eight junior high schools and 1,300 pupils in fifty-seven senior high schools participated in the program. Workshops and in-service training of teachers, as well as evaluative techniques, were an integral part of the project.

Acceleration of Arithmetic in Grades 3 to 6 (1962)

The Cincinnati Public Schools conducted an accelerated arithmetic project for four years in 23 elementary schools. This project was designed to help elementary school children achieve, think, and learn at different levels, and to encourage and guide them to realize their capabilities at a faster pace of learning. In-service training for teachers and various evaluation techniques were required to complete the basic course requirements at the grade level enrolled before beginning material at the next level. It was possible for one-year acceleration during this four-year period.

Using random selection of 18 of the 23 schools involved to evaluate the effectiveness of the elementary special program upon those students in the seventh grade, four groups were identified:

1. accelerants in homogeneous accelerated classes
2. accelerants in hetergeneous classes

3. non-accelerants in homegeneous non-accelerated classes
4. non-accelerants in heterogeneous classes

Differences in mental ability among the groups were statistically controlled. Conclusions were:

1. Students who were accelerated in the elementary school and who were placed in the special program in grade 7 achieved significantly higher on special tests than non-accelerated students in the special arithmetic program.
2. Students who were accelerated in elementary school but now attending the conventional seventh grade program scored significantly higher in achievement than did the non-accelerants in the special program.
3. The students in the special program achieved significantly higher regardless whether the student had been accelerated in the elementary school.
4. Both acceleration and the special arithmetic program tended to increase achievement in this subject matter area.

Advanced Placement Work in Chemistry For Small Northwest Ohio High Schools (1962)

A cooperative Advanced Placement program in chemistry was conducted by Bowling Green State University in cooperation with 17 northwest Ohio high schools. Twenty-three students from 15 schools completed the project.

The primary objective of the program was to explore means by which students in small high schools could undertake advanced placement work in chemistry. Through the use of the televised instruction and laboratory work on the Bowling Green Campus on Saturday mornings, a rigorous university level chemistry course was provided for the students. The College Entrance Examination Board's Advance Placement chemistry exam was taken by all students at the end of the course. While there were no significant differences in achievement on the AP examination between this group and the entire group taking the examination, the study demonstrated that it is possible to offer a cooperative Advanced Placement Program in a laboratory oriented science.

Cleveland Advanced Placement Program (1962)

The Cleveland City Schools conducted a coordinated program for academically talented students in World History, grades 9 or 10, and American History and Government in grade 11. In each

of the courses students were prepared for more exacting work in Advanced Placement courses in World History, grade 12, and American History, grade 12. The participating teachers prepared Teachers' Guides in the Advanced Placement courses following extensive in-service training. All 12 senior high schools participating in the project sent representatives to symposiums concerning the values and objectives of these programs.

English Honors-Advanced Placement Program In Grades 10-12 (1962)

The Cleveland Public Schools developed an Honors and Advanced Placement Program in English beginning in 1960. Through the use of Saturday workshops for the participating teachers, teachers' guides were developed for grades 10-12. The students participated in a series of Student Enrichment Programs designed to broaden their knowledge of the various forms of English literature. Summer reading was used successfully to prepare the students for the college level Advanced Placement course.

Experimental Counseling Program for Gifted High School Students in a Large City (1962)

The Akron City Schools completed a project designed to make use of a counselor in the central office to assist in meeting the needs of gifted high school students. After a series of conferences with principals and counselors of all Akron high schools, the counselor engaged in the following activities: collection and dissemination of data, individual counseling, consultant services, in-service training for the schools, identification and selection of unrecognized gifted students in the lower socio-economic areas, conducted a series of multiple counseling sessions for demonstrations purposes, and conducted a study on underachievement.

Attempting to locate the unrecognized gifted students was complicated by invalid group I.Q. scores and lack of indications of possibly giftedness with cumulative records. Of forty students selected for individual testing only two were identified as gifted. The need for a multi-facted approach toward giftedness which is not based upon group I.Q. tests was implied.

Two different groups of high ability, underachieving students were formed for the purpose of conducting scheduled multiple-counseling classes. The purpose of the multiple-counseling classes. The purpose of the multiple-counseling classes was established as that of bringing about desirable changes in behavior of under-

achieving academically talented students. Desirable changes may be thought of as: 1) a change from underachievement to achievement commensurate with ability; and 2) a change from undesirable characteristics, such as withdrawal behavior, overly agressive behavior, etc. to more socially acceptable forms of behavior.

Multiple counseling sessions were considered to be effective in one of the two groups employing this method. Although these were few significant changes in personality assessment among the group, individual students did show positive growth in some areas of personal, social and academic adjustment.

Experimental Program for Academically Able Junior High School Students (1962)

An experimental program was conducted by the Lorain City Schools for junior high school students. The principals and teachers planned enriching activities in the normal subject matter areas, supplemented with foreign languages and music appreciation. The program was also designed to create an atmosphere conducive to exploratory experiments. Creativity and freedom of expression were encouraged with formal "grading" being avoided.

Guidance Project for the Gifted (1962)

The Kettering City Schools' project provided guidance and counseling services and guidance related activities specifically for academically gifted students. In order to eliminate only high ability-high producing students, 2) the high ability-low producing students, and 3) the gifted students with special needs.

Two specific purposes of the project were to determine the unique guidance and counseling needs of gifted students which would warrant specific attention and to determine how special guidance personnel relate to the total school program in an effort to help gifted students. A total of 210 students were included in the project during the two-year period, and during the second year seven interest clubs and seminars were initiated to enrich the educational experience of these gifted students.

Huron County Gifted Child Project (1962)

The Huron County project was concerned with two methods of enriching the educational opportunities for academically gifted students. The seminar approach was used with twenty-two selected seventh and eighth grade students on a county-wide basis. The other phase of the project was the organization of nine interest clubs at the local level.

Four specific objectives outlined by the Division of Special Education served as the framework for planning the seminar program. These were:

1. To provide an enriched educational experience to high ability junior high students.
2. To develop county-wide interest in the use of this technique with the eventual incorporation of the seminar technique in the local schools.
3. To provide an opportunity to develop other school personnel for leadership of seminars in the schools.
4. To evaluate the use of the seminar approach with the gifted in a small county school system.

The specific aim of the seminar content was to provide the stimulus for developing the analytical and imaginative abilities of the participants. The environment was conducive to productive discussions and structured activities which not only gave opportunities for analytical and imaginative thinking but also enabled students to acquire and refine learning skills which are especially suited to seminar situations.

Interest clubs provided enriched experiences based upon expressed interests of high ability students. Evaluation indicated that the merit of this type of enriching experience is dependent to a great extent upon the quality of the club leader and the degree of involvement of students in planning.

Portage County Gifted Child Project (1962)

Dr. Walter Barbe coordinated the Portage County Gifted Child Project. It was designed to demonstrate what could be accomplished for gifted children in the elementary schools in a county system. The two year project had as its specific goals:

1. To provide information concerning the gifted children to the teaching personnel of the county.
2. To provide assistance in the identification of gifted children.
3. To develop administrative provisions to provide for gifted children.
4. To provide supervisory assistance to classroom teachers working with gifted children.

The Portage County Gifted Child Project was staffed by a half-time coordinator and two full-time supervisors. In addition

to the professional staff, secretarial service and research assistance were provided. The regular administrative and supervisory staff and teachers of Portage County participated in the project.

Of the ten school districts in Portage County, every district made progress in providing for the gifted. Five of the districts provided administrative adjustments in the form of special classes, while the remaining five districts provided for the gifted through enrichment practices in the regular classroom. More than one hundred individual tests of mental abi.ity were administered to county children and other assistance was provided in many schools.

In evaluating various phases of the project, certain findings were very clear. The project apparently assisted teachers in broadening their concept of giftedness. Teachers, remaining in the county two years later, no longer limited the definition of giftedness to any rigid I.Q. score. Teachers showed positive changes in attitude toward and information concerning the gifted.

Special classes provided valuable information. These classes were very clear. The project apparently assisted teachers in broadening their concept of giftedness. Teachers, remaining in the affect the children's choice of friends. This was not true in the Portage County special classes.

The evaluation of special classes by children, parents, teachers and administrators directly connected with the program tended to be somewhat indifferent in their rating, expressing neither overwhelming favor, nor complete rejection.

The areas of career choice requirements of gifted children was studied extensively, yielding data which are interesting and significant to persons working with gifted children.

The vocational, educational, and aspirational concepts of gifted children and of the parents of gifted children concerning their own children were also studied.

Attempts to measure self-concept differences between gifted children in special classes for the gifted and those not in special classes were unsuccessful in locating differences.

Providing for the Academically Gifted High School Students in Two Rural Counties (1962)

Eleven high schools, including one city, two exempted village and eight local schools in Paulding and Defiance Counties participated in this two-year project. The purpose of the project was to study the feasibility of programing for gifted children within the small high school where homogeneous grouping of the gifted may

be difficult. The combined enrollment of 3120 students yielded 127 gifted students who participated in the program.

The project director, working out of the Paulding County office, was responsible for directing and coordinating the efforts of the eleven participating schools assisted in identifying the student participants and assumed the sponsorship of each student's programed activity. This programing was done on an individual basis and included: projects, experiments, research studies, acceleration in mathematics through the use of programed learning materials, high school and college level correspondence study, reading acceleration, and a literature seminar.

Summit County Special Project Class (1964)

Summit County established a special fifth grade classroom unit to provide opportunities for research in the areas of administrative and instructional methods for the high ability student. Staff psychologists tested 136 children with individual tests of mental ability following group I.Q. screening. As a result of the individual testing 26 children with Binet I.Q.'s of 140 to 173 were selected to comprise the class including the highly gifted one percent of the students in grade 5. The children were transported from their local district to the central unit classroom. The usual classroom techniques were modified to determine more effective instructional methods for gifted children. Such areas as remediation, motivation, and a more individualized curricula were investigated and studied during the two-year project. A comprehensive report of this project is available in *The Challenge of the Highly Gifted,* Columbus: Division of Special Education, Ohio Department of Education, 1965.

An Ongoing Ungraded Program for Children in Grades 5-8 Designed to Encourage and Develop Creative Talent (1967)

The Westlake City School pilot program to encourage and develop creative talent was partially funded by the Ohio Department of Education as one aspect of a more global federal Title III planning grant. The pilot project was organized in 1967 to provide a variety of experiences for the highly creative gifted students in an ungraded setting. Through the use of improved methods of communication and new research methods, students will be given opportunities to explore fields of interest currently not a part of the regular elementary curriculum.

Enrichment Center for Gifted Fourth Grade Students (1967)

During the 1965-67 school years South-Western City School

initiated an experimental enrichment center for gifted children from ten elementary schools which had partial funding from the Ohio Department of Education. Children spent four afternoons a week pursuing areas of interest in investigating and learning. Focus was placed upon literature, creative writing, music and art appreciation, conversational foreign languages, creative drama, and independent study.

VIEW Program of Occupation Training For Accelerated Students (1967)

The Madison Township Schools were partially funded in 1967 for the initiation of a work-study program for underachieving gifted senior high school students which would offer vocational opportunity, interest, experience and work orientation (VIEW) in particular scientific and creative areas. Although no students were placed due to a curtailment of adequate funding the program appears to present a framework for work-study programing for the gifted secondary student.

CHAPTER IV

STATUS STUDIES

The results of eight status studies have been made available to educators throughout Ohio. Hopefully, these studies have been instrumental in developing programs or provisions for gifted children during this decade.

This type of research may be useful in:

1. Providing objective data to school districts.
2. Providing data to the Ohio Department of Education in order to give added direction toward future concentration of effort or recommendations to the State Board of Education.
3. Determining the direction of future research.

Published Studies

A Review of the Literature
Conducted by
Viola Cassidy and Marie Flesher
The Ohio State University

Over 700 studies, report and journal articles were reviewed and annotated. These were published in *A Selected and Annotated Bibliography on the Gifted,* 1960. Sections include general headings, identification, programs, and personnel.

A Descriptive Survey of High School Seminars for the Gifted

Conducted by
Herbert Coon
The Ohio State University

Forty-eight school systems in Ohio were surveyed to determine if seminars were offered at the high school level. As a result, nineteen seminars for high school students were observed and reported upon in the publication, *Seminars for the Gifted in Ohio High Schools,* 1962. The bulk of this report includes capsule summaries of programs with one chapter devoted to conclusions derived from this detailed study.

A Survey of Ohio's Schools
Conducted by
Thomas Stephens
Division of Special Education

Ohio's 878 school districts were surveyed with a lengthy questionnaire to determine the extent of provisions for the academically gifted. With over 95 percent return, results indicated that about 28 percent of the districts were providing for gifted students. A detailed report of these findings was published in *A Look at Ohio's Gifted,* 1962.

A Survey of Secondary Level Grading Procedures
In Selected Ohio School Districts (1964)

Conducted cooperatively by the Divisions of Special Education and Research of the Ohio Department of Education.

School districts which had responded to the 1960-61 status study of gifted programs were surveyed during the 1963-64 school year. Grading provisions at the secondary level more frequently reported were weighted marking systems. Over 90 percent of the schools expressed satisfaction with its use.

An Evaluation of a Project for Gifted Children
In a County School System (1962)
Conducted by
Dr. Walter Barbe

Information was desired concerning reactions to the gifted program and to other factors dealing with the education of the gifted in Portage County. Additional information was sought in the areas of aptitudes, adjustments and difficulties of the school work. These areas were reported on by gifted children in the program, their parents, teachers of gifted children, regular class teachers, and school administrators.

Favorable responses were obtained from all groups with the teachers of the regular elementary classes indicating the least favorable responses. This may have been largely due to the short term duration of the program (2 years) and the inability to establish long term attitude change by providing more information concerning the program to the regular classroom teachers.

The Frequency of Academic Underachievement Among Elementary Pupils Who Display High Scholastic Aptitude (1962)

Conducted by
Kent State University

This study was undertaken because of an interest in the incidence and degree of underachievement among gifted children in the State of Ohio. Two educational levels, fourth and seventh grades, and six cost size categories were sampled. Categories were defined by rank ordering all school systems for per pupil cost and average daily membership. This resulted in classes of large, medium, and small systems for high and low cost categories. A total of 1,819 fourth graders and 1,949 seventh graders in 42 school districts were included in the final sample.

Underachievement was defined as disparate behavior on the group California achievement and intelligence tests utilizing the differences between obtained grade placement and anticipated grade placement.

Conclusions

1. The incidence of underachivement among gifted elementary school children is less than sometimes assumed. Underachievement is more frequently among highly gifted than among more moderately gifted pupils. Among fourth grade children, it was found that 17 percent of the children who tested between 116 and 142 I.Q. were underachievers and 32 percent of those who tested above 132 I.Q. were underachievers. In the seventh grade, 13 percent of the students who tested between 116 and 132 I.Q. and 20 percent of those above 132 I.Q. were underachievers.
2. In general, the size of a school system does not seem to be significantly related to either the frequency or degree of underachievement among gifted elementary pupils.
3. In general, per pupil expenditure on the part of school systems does not seem to be significantly related to either the frequency or degree of underachievement among elementary school pupils.
4. Skill deficiencies vary significantly within a grade level and change between grade levels. At the fourth grade

level, the greatest frequency of underachievement for gifted children was observed in reading comprehension, arithmetic fundamentals, mechanics of English, and spelling. At the seventh grade level, these skill areas were mechanics of English, and spelling.

5. The frequency of underachievement among gifted pupils was observed to decrease from the fourth grade to the seventh grade. No signifiicant change in the degree of underachievement for underachievers was observed between grades.
6. At the fourth grade level, significantly higher frequency of underachievement among highly gifted pupils was observed than among more moderately gifted pupils. The observed difference was not significant at the seventh grade level.
7. No significant relationship between degree of aptitude and degree of underachievement for gifted pupils seemed to exist at either grade level.

The Nature and Extent of Extra Costs of Educating Academically Gifted Pupils in Ohio's Public Schools

Conducted by
The Ohio State University

This study was made to determine factual data concerning the costs associated with programs for the gifted in Ohio's public schools. Particular effort was made to obtain cost data on programs which have been developed without extra financial support. The extent of extra costs for educating the gifted were determined for the following major categories:

1. Identification and Testing

   Approximately $6.00 per pupil is spent for group testing of intelligence for tests and personnel involved.

   Individual tests were considered highly desirable, particularly to "check out" doubtful cases. A per pupil cost of $13.00 is indicated for the testing and interpretation of test results.

   Overall costs for an optimum testing program is approximately $42.00 per pupil. City school districts which have developed more comprehensive programs required only

$26.84, considerably smaller than the other types of districts.

2. Program Provisions

   A total estimated cost of $77.00 for additional teachers to provide special instructional provisions is reported.

3. Special Services

   The average cost of counselor services is approximately $20.00 per pupil with the greatest expenditure at the senior high school level in the city school districts. The expenditure for psychological services is slightly in excess of $11.00 per pupil.

4. Evaluation and Research

   The estimated cost of desired improvements (approximately $147.00) is associated closely with the need for evaluation and research personnel to assess programs for the gifted. The need is most apparent in small school systems since city school systems spend ten times more per pupil on evaluation and research.

   Overall the districts expended $371.17 per pupil for the gifted in comparison with $355.00 reported by the Ohio Department of Education for all districts during the 1961-62 school year.

A Follow-Up Study of 1952 and 1962 High-Ability, High-Achieving Ohio Secondary School Graduates (1964)

Conducted by
Kent State University

The purpose of this study was to follow-up graduates of 1952 and 1962 who had been listed as winners in the State Scholarship Tests. Questionnaire data were secured from 74 and 91 percent of the 1952 and 1962 classes, respectively. Results indicated that 98 percent attended college, showing the extremely high predictability of the test. Several critical analyses of college and high school course content and experiences were presented in detail in *Pathways to Progress,* 1964, Stephens, Thomas and Gibson, Arthur (Eds.), now out of print.

CHAPTER V

RESEARCH STUDIES

Although demonstration projects and status studies provide information and a functional operation useful in educational planning there are inherent limitations in these endeavors. More basic research can test hypotheses and control variables which can lead to significant findings, and ultimately toward improved program development.

Six controlled research studies have been completed during this decade. Summaries of these studies follow.

A Comparative Study of Moderately and Highly Gifted Children (1963)

Conducted by
Kent State University

This study provided detailed comparative date on 65 matched pairs of highly gifted and moderately gifted elementary school children. Data were obtained in the areas of educational development, personal, social, family adjustment, and family background. Results of this comprehensive study which utilized an extensive battery of standardized instruments, show wide differences among the groups in several areas. Implicit in the findings is the need to establish differentiated gifted programs in Ohio for the two groups of gifted children. The detailed study was made available in Barbe, Walter, *One in a Thousand,* Columbus: Division of Special Education, Ohio Department of Education, 1963, now out of print.

A Study of the Degree of Consistency and Factors Related to Consistency in the Group Intelligence Test Scores of Gifted Children in Four Ohio Schools (1962)

Conducted by
Ohio University

The purposes of this study were:

1. To determine the consistency of the group intelligence test scores of a selected sample of gifted children.
2. To examine the consistency of the group tests as a means of identifying children with intelligence quotients of 120 or higher.

3. To examine some of the variables which might conceivably bear a relationship between these variables and consistency of the intelligence quotients secured by the children on recurring tests.

Four schools were selected for the sample study. These schools were selected on the basis of socio-economic data and the consistent use of the same group intelligence test, California Test of Mental Maturity, in their sequential testing program. Two of the schools were in the lower third, one in the middle third, and one in the upper third of Ohio school systems. This was based on per pupil evaluation and minimum level of teacher salaries.

Recorded group intelligence test scores were used as the basis for the selection of the subjects. Students enrolled in the eleventh and twelfth grades at the time of the study were selected for further investigation.. The sample consisted of 1,302 students, 658 in the junior class and 644 in the senior class.

On the total eleventh and twelfth grade students in the four schools, 199 students, or 15%, had scored at or above 120 I.Q. Four categories were established:

1. Consistents—Those who consistently scored at or above 120 I.Q.
2. Inconsistents—Those whose I.Q. scores fluctuated above and below 120.
3. Regressents—Those who tested above the 120 I.Q. early in their school lives and who later dropped below this level.
4. Emergents—Those who tested below 120 I.Q. on early tests and who later scored above this point.

The total sample of 199 gifted subjects produced the following numbers and percentages in each category:

Category	Number	Percent
Consistents	29	15%
Inconsistents	71	36%
Regressents	82	41%
Emergents	17	8%
	199	100%

A personal data form was administered to each subject selected for the study. This form provided data useful for cross-

checking the data gathered from the cumulative records, as well as other information not commonly kept in school records. Along with the administration of the personal data form, a copy of the Sims Score Card (Hieronymus' Revision) was administered to each subject.

The findings of the study indicated that there was a significant difference in the number of students selected from school to school. Sex differences were not significant for identification of the gifted from school to school, and between classes from school to school.

Conclusions

1. It was concluded that the persistence categories represented unique classifications, and that as many males as females would be found in each category. Insofar as consistency of giftedness was concerned, there was little question that students in the sample represented distinctly varying degrees of such consistency.
2. There was little basis for expecting trustworthy early identification of the gifted with the use of group tests. Sixty-seven percent of the total sample of 199 children were identified at the initial testing, but the number fluctuated subsequently from testing to testing.
3. Persistence of gifted children in the gifted category is related to more than the provision of specially structured programs for the gifted.
4. There was an inverse reationship between persistence of the gifted and the socio-economic status of the school. It was further concluded that there are probably other factors which affect the persistence of gifted in certain schools.
5. Consistents, or those who persist in the gifted category, tend to come from more priviledged homes than do those who do not persist.
6. High socio-economic status did correlate with high I.Q. scores for the total sample of 199 students.
7. The level of educational attainment of the parents was related to the students' persistence in the gifted category. The parents of consistents had higher educational attainments than did parents of members of other categories.
8. No real difference existed between persistence categories and marital status of parents.

9. There was a definite relationship between the students' school achievement and persistence in the gifted category. Consistents did not repeatedly secure the highest point-averages at successive grade levels within the schools. They did, however, secure the highest point-averages when the total figures for this category were tabulated together for all schools. When total four year averages for seniors were computed, consistents had higher averages than the other three categories.

Verification of Possible Intellectual Giftedness By the Use of Individual Intelligence Tests (1962)

Conducted by Ohio University

This study investigated the possibility that some intellectually gifted children are being overlooked in schools that use group intelligence tests when screening for placement. Studies have shown that some children receive higher I.Q. scores in individual testing than in group testing, while for others the reverse is the case. This finding is common enough to create concern about the use of group intelligence tests when identifying gifted children.

The criterion used in this study for identifying children as gifted was an I.Q. score of 125 or above on the Stanford-Binet Intelligence Scale. This would include approximately seven percent of the children in a normally distributed group.

To identify gifted students who had group intelligence quotients below 125, the following procedure was used:

1. In three school districts, all children in grades four and six were given the California Test of Mental Maturity, Elementary, Long Form. Children in grade eight were given the California Test of Mental Maturity, Junior High, Long Form.
2. From the group of children in these three grades having an I.Q. score between 100 and 124 inclusive, a representative sample of 240 was selected, eighty at each grade level.
3. This sample of 240 children was administered an individual intelligence test, the Stanford-Binet.
4. Those children who received an I.Q. score of 125 or above on the Stanford-Binet Intelligence Scale were then classified as gifted.

A comparison group which had similar group intelligence quotients to the gifted group was selected to determine if differences existed between the group identified as gifted and those who were not gifted.

The two groups were compared in the following areas:

1. School marks as determined by grade point averages.
2. Scores on standardized achievement tests.
3. Family background to the extent of what was found in the cumulative record and from an information sheet sent home to parents for completion.
4. Information about individual characteristics and traits obtained from a teacher's rating sheet.

A comparison of the relationship between the I.Q. scores of the Stanford-Binet and the California Test of Mental Maturity was made. The comparisons were made in the following areas:

1. Correlations between the two tests for each grade level and total sample.
2. Deviations between the two tests for each child.
3. Number of children having Stanford-Binet I.Q. scores deviating above or below the California Test of Mental Maturity I.Q. range (100-124) used in the study.

Conclusions

1. For screening purposes, a California I.Q. score of 110 could have been used with 94 percent accuracy as a cutting point in this study.
2. There was a statistically significant difference between the gifted and non-gifted groups in achievement on standardized achievement tests. The gifted group scored significantly higher on the Reading and Arithmetic sections but not on the Language section of the achievement tests.
3. No significant difference was noted between the gifted and non-gifted groups in classroom achievement as measured by the grade point average.
4. The girls in both the gifted and non-gifted groups achieved at a higher level than the boys on the standardized achievement tests and had a higher grade point average. This difference was not statistically significant.
5. Classroom teachers, using the Teacher Rating Sheet, tended to rate the gifted group higher than the non-gifted

group on traits generally considered as traits possessed by gifted children. There was a significant difference for the traits of Creativeness and Imagination, Mental Ability, Judgment and Curiosity. The gifted group was rated lower than the non-gifted group for the traits of Physical Development, Leadership, and Emotional Control, but the differences were not significant.

6. The educational level of the parents of the gifted group was higher than that of the non-gifted group.
7. The correlation between the California and Stanford-Binet I.Q.'s was +.515 for the total sample.

A Study of Certain Family and Personal Dynamics Associated with School Achievement Among Gifted Children (1962)

Conducted by
Bedford City Schools
and
Ohio University

This study of fifty-five pairs of highly intelligent boys and girls (130 I.Q. and above) sought to identify factors which might be associated with significant differences in school achievement as tested by standardized test batteries of basic learnings. The factors examined were labeled "family and personal dynamics" because the emphasis was on the student as a person and as a member of a family.

Each pair was equaled by sex and school grade and contained a "high" and a "low" achiever. The difference in achievement was at least one standard deviation on an achievement battery. These selection methods resulted in 33 pairs in grades 4-6 and 22 pairs in grades 7-10. There were 35 pairs of boys and 20 pairs of girls.

Personality assessments with the use of the California Test of Personality, showed significant differences in the "total adjustment" scores of the test. Higher and lower achievers' scores on the "family relations" and the "school relations" sub-tests differed significantly. Test scores varied more among boys than among the girls.

On the Gough *Adjective Check List*, an instrument inviting reactions indicative of self concept, the higher and lower achieving boys differed from each other more than did the girls. Higher achieving boys tended to be more self accepting, self assured, flexible, and with higher morale. Higher achieving girls differed

from lower achieving girls most in feelings of self assurance and responsibility.

On the *What I Think* inventory the higher achieving boys, as compared with the lower achieving boys, showed greater satisfaction with school and with their achievement, and a greater degree of acceptance and satisfaction on the part of their parents toward their goals and their achievements. The girls differed less than the boys on this inventory. The higher achievers seemed to have a greater sense of confidence in their academic ability. Their parents seemed better satisfied with their effort and achievement. In general, there were very few differences of attitude between mother and father of the same child, at least as seen by the child. Their parents were seen, by most of the 110 children, as eager for them to achieve well and to choose significant life goals.

The Occupational Interest Inventory, level of interest section, showed higher and lower achieving boys to differ more than higher and lower achieving girls. Higher achieving boys tended to have higher occupational interest levels than lower achieving boys. This difference was not obtained for the girls.

An adaptation of the *Bogardus Social Distance Scale* was used to measure attitudes of acceptance toward persons of various occupational and educational levels. No difference was found between the high and low achievers.

Each student was asked to write an autobiography. In general, the higher achievers revealed a greater number of hobbies, responsibilities, educational-occupational aspirations, and persons with whom they identified. The higher achievers wrote more about themselves than the lower achievers. These differences, however, were not uniform.

Differences between higher and lower achievers were greater in some communities than in others when the social positions were assessed by means of Packard's modification of the *Kahl and Davis Social Position Scale.* In general, both on the *Packard Scale* and on the Hieronymus revision of the *Sims Scale,* the higher achievers tended to come from homes of greater social and economic advantage. There were exceptions to this general finding. These 110 families, as a group, tended to stand higher in both social position and economic rank than the national distribution.

The best friends of these children were identified by them and then rated by teachers and principals as to their attitudes toward education. In general, the higher achievers' friends had attitudes

toward education and school achievement that would encourage their drive to excel. This difference was appreciable above sixth grade, but not great in grades four through six.

When the parents of these gifted children were interviewed they were eager to talk about their children. The findings of the parental interviews showed some differences between parents of higher and lower achievers. Parents of the higher achievers tended to be slightly older, somewhat more active in the community, slightly better educated, and somewhat better satisfied with the schools than parents of the lower achievers.

A Study of Underage Children Admitted to School On the Basis of Pre-School Tests Compared With A Control Group (1963) Conducted by Cuyahoga Falls City Schools

This study of sixth grade students attempted to contrast measurable factors on high ability children of comparable intelligence (mdn. I.Q. 120) and age who started one year early with those of controls who started school at the conventional age.

Achievement test results indicate that median margin above grade level of both groups was 1.7. Both groups average 3.2, slightly in excess of a B average. Critical ratios on the California Tests of Personality were found to be non-significant between the groups.

In these and other areas measured and analyzed "the differences between the early entrants and the control group are negligible. Both groups seem to be functioning according to their ability level, somewhat nullifying the effects of the age difference."

An Attitude-Information Inventory Administered To Elementary Teachers in Portage County (Ohio) At the Beginning and End of a Special Project On the Gifted (1963)

The purpose of the study was to determine if changes occurred in the attitudes of teachers toward gifted children when they were directly involved in an on-going program for gifted children.

A questionnaire containing 40 items was administered to all elementary teachers within the project area at the beginning and end of the two-year project. Although there were problems inherent in the instrument due to low internal validity the basic instrument showed promise as an initial step toward measuring basic attitudes and information about gifted children.

CHAPTER VI

FINDINGS AND RECOMMENDATIONS

Research during this decade has led to some conclusions regarding the State Department of Education's role in the instruction of academically gifted children. This is not to say that a definitive educational program for gifted children has been achieved, but a structure can be developed from which a dynamic program could evolve. The intention in this brief resume is to present findings which can be used to build the desired framework.

Identification

1. The primary consideration when identifying academically gifted children should be academic potential as measured by individual tests of intelligence. Superior school marks, outstanding scores on tests of achievement, and substantive opinions will overlook many bright students and will include a high percentage of students who do not have the intellectual capacity to succeed in a special program.
2. Programs for the gifted should include only students who score within superior levels on tests of intelligence.
3. There is evidence to suggest that those students who test above an I.Q. score of 130 are not adequately provided for in the general education program.
4. Group tests of intelligence will not identify many students of high I.Q. and should be used only as screening instruments. It may be necessary to use a low cutoff point of 110 I.Q. to accurately determine 94 percent of those children who may in fact be gifted according to individual tests. Individual tests of intelligence are recommended for verification of intellectual functioning.
5. It is possible to improve the observational skills of teachers as an aid in screening procedures.

Selection of Students

1. Confusion between identification criteria and selection procedures is prevalent among school with educational provisions for gifted students. Systematic selection of gifted students should be made following the initial identification.

2. The students should be selected for the programs which best meet their educational needs.
3. Factors such as achievement, teacher opinion, interests and aptitude, should be used in the selection process.

Educational Provisions

1. Provisions for the gifted should be available at every grade level for every gifted student in Ohio.
2. Programs should be designed with the high achieving gifted, and low achieving gifted, and the gifted with special needs in mind.
3. Program designs for the academically gifted include:
   a. early entrance to school
   b. grade acceleration
   c. accelerated curriculum
   d. seminars
   e. work-study programs
   f. special projects
   g. cooperative programs with colleges
   h. educational counseling
   i. remedial instruction
   j. personal counseling

Supervision and Administration

1. The demonstration projects showed that special programs can extend beyond school district boundaries. Supervision on a two county basis incorporating a city and exempted village district proved successful.
2. A counselor on a full-time basis can provide many services to the education of gifted students.
3. Instructional programs for the gifted require supervisors with a knowledge of gifted children.
4. Special programs for the gifted require expenditures in excess of normal costs. Because of the added expense, many gifted children attend schools where special programs are not available.

Part II

CURRENT STATUS OF GIFTED PROGRAMS IN OHIO

CHAPTER VII

BACKGROUND AND SURVEY DESIGN

During the decade of "Sputnik plus ten" we have viewed a rekindling of interest in the awareness and education of gifted children. These children with unusual abilities were first spotlighted in American education following the monumental resarch of Lewis Terman. The gifted child movement reached its hiatus during years of relative neglect in the nation's schools. The interest was refocused with the advent of the Space Aged and the increased emphasis upon the need for educational provisions for gifted children.

Several states have recently given leadership, direction and scope to systematic and comprehensive programs for gifted children. How has Ohio reacted to this need? What future directions are possible? These and other questions prompted this survey of current provisions for the gifted in Ohio's schools.

Related Research in Ohio

In 1951, a statewide committee surveyed 288 school districts (Ohio Department of Education, 1951). With 90 percent return, results indicated that 11 percent had provisions for the gifted. A survey of all districts shortly after Sputnik, based upon a 67 percent return, found that a majority of the districts (59 percent) had some provisions for the gifted (Rich, 1959). While the small percentage of return might have inflated this apparent growth (since districts without programs in this era of high interest for the gifted might have tended to not respond negatively), there is little doubt that concern for and program growth of provisions had occurred.

The Stephens (1962) study of the 1960-1961 school year, based upon a 95 percent return, showed that 28 percent of the districts

had provided for the gifted. It appeared that the attrition rate was high in comparison with the frequency of programing found in the previous study.

The survey found that many of the schools tended to rely heavily upon academic achievement for inclusion of children in the gifted programs. Concepts of giftedness varied markedly between school systems and frequently within the same system. This comprehensive study was published in the booklet, *A Look at Ohio's Gifted,* 1962. The suggestions incorporated in the publication may have given impetus to the development of many of the current programs in Ohio.

Procedures and Survey Design

In January, 1967 a letter was sent to the superintendents of the 709 school districts in Ohio requesting their cooperation in completing the survey questionnaire. A follow-up letter was sent to those districts which had not responded to the original request by March, 1967.

The respondents from those few districts submitting incomplete or conflicting responses were contacted by telephone in order to insure the highest possible percentage of usable data.

Although a questionnaire survey had been conducted during the 1960-61 school year there was general agreement that our current knowledge of provisions for the gifted was, to a large extent, unknown. Many of the older programs were no longer in operation. The consolidation of school districts, increased emphasis upon the ungraded junior high and middle school concepts, and the continued growth of the Advanced Placement Program at the senior high school level were unknown dimensions as they relate to current programing for the gifted.

The emphasis and scope of the former questionnaire was reevaluated in terms of (1) increased emphasis on administration and curricular provisions, (2) cost per pupil and other financial data, and (3) problem areas encountered. The questionnaire was subjected to face validity analysis of the professional staff of the Division of Special Education and selected public school administrators. The format of the questionnaire is found in the appendix.

Semantics is a problem when we attempt to define a term such as "gifted." Since no unity concept of giftedness has uniformly been accepted by researchers or practitioners a limited definition of the term gifted was used in this survey. The respondent was

instructed to consider "any pupil for whom special programing is necessary because of his exceptional "academic or intellectual abilities" as being gifted. In this instance there is no assurance that idiosyncratic definitions of gifted were not used by respondents even though a limited definition was requested. General terms such as "enrichment" and "acceleration" were operationally defined. Leading statements were carefully controlled. The normal limitations of a checklist with its tendency toward forced choice is difficult to surmount. Responses were open-ended in order to maintain internal validity.

Even assuming adequate design the data are limited to the 1966-67 school year and are subject to restrictions imposed when data are received from several hundred school districts of varying wealth, size, philosophy, etc.

The "Survey of Education for the Academically Gifted" was designed to gather information in the following areas:

- General information regarding type of district, enrollment, teacher-pupil ratios, per pupil cost, excess cost.
- Identification and selection of the gifted.
- Administrative and curricular provisions for the gifted.
- Evaluation of the gifted.
- Problems in educating the gifted.

The respondents were highly cooperative and sensitive to the problems inherent in a state-wide survey of this nature. There were no questionnaires eliminated in the final tabulation due to insufficient information. The extent of the cooperation is clearly illustrated in Table I.

TABLE 1

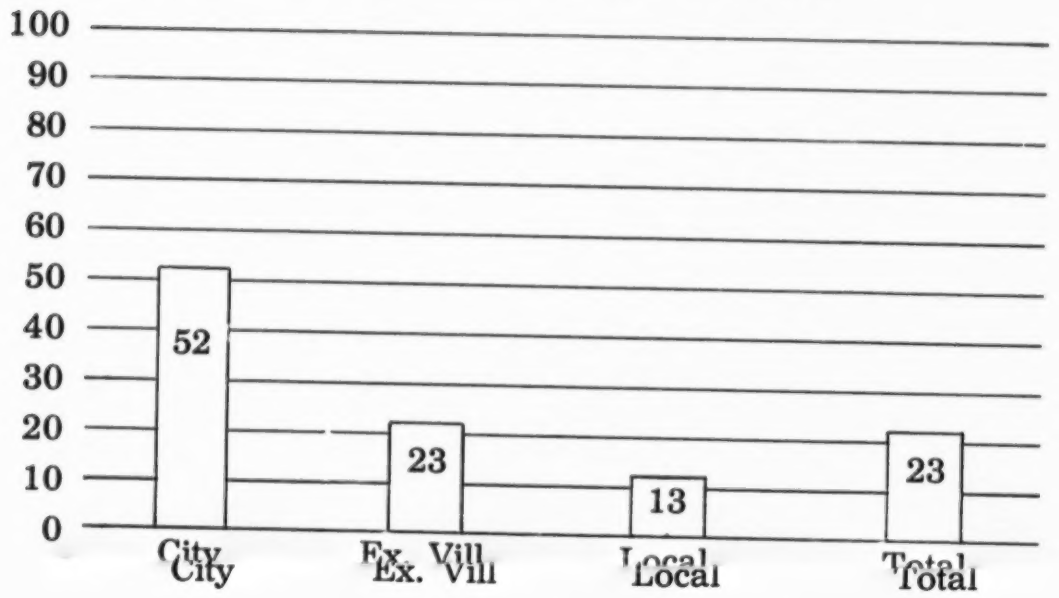
DISTRIBUTION OF SCHOOL DISTRICTS RESPONDING TO SURVEY OF PROVISIONS FOR THE GIFTED

Type District	Number In State	Number & Percent Returned	
		No.	&
City	163	157	96
Exempted Village	54	53	98
Local	492	480	98
TOTAL	709	690	97

There was no significant differential response among the districts. The total return represents 97 percent of the school districts in Ohio and on this basis, may be considered to accurately reflect the current status of programing for the gifted in Ohio.

GRAPH 1.

PERCENTAGE OF DISTRICTS WITH PROVISIONS FOR THE GIFTED BASED UPON TYPE OF DISTRICT



The graph indicates that 23 percent of the total school districts have provisions for the gifted in at least one academic level within the district. Several districts, particularly large cities, have provisions at all levels. Over one half of the City Districts report provisions, nearly one fourth of the Exempted Villages report provisions, with 13 percent of the Local Districts reporting provisions for the gifted.

This report concerns the 159 school districts currently providing for the gifted students in Ohio.

Table 2. and the accompanying graph indicate that provisions for the gifted in Ohio schools have shown a relatively consistent growth within the last ten years with the exception of two periods of abrupt increase in the number of programs initiated. This rapid expansion occurred after Suptnik and the reawakening of national interest in the gifted and immediately following two biennium allocations of the Ohio General Assembly beginning in 1959. The

expenditures provided state consultation and promoted research and experimental programs of education for academically gifted children.

The momentum created in these experimental efforts may have been instrumental in the current growth of programs although there now appears to be a lag in interest in the gifted. Only 15 new programs were begun during the 1966-67 school year, the smallest yearly growth since Sputnik.

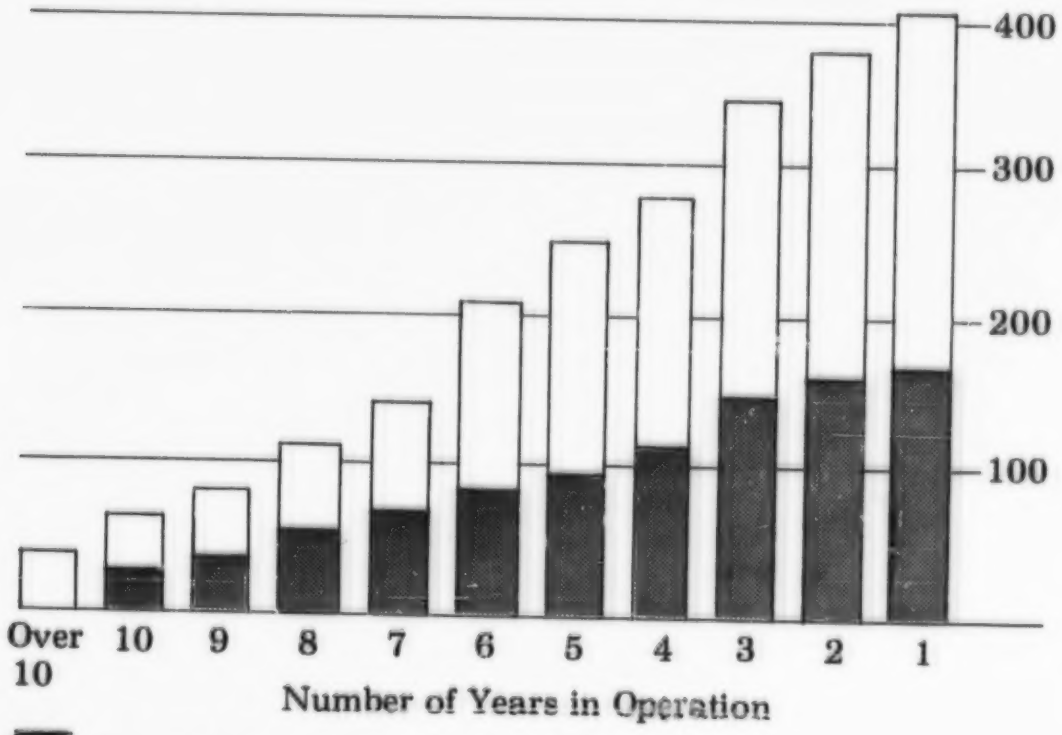
TABLE 2

PROVISIONS FOR THE GIFTED ACCORDING TO LEVEL AND AGE OF PROGRAM BY LEVEL*

Number Years In Operation	Number of Provisions		Cumulative Total
	Elementary	Secondary	
11 and above	11	13	24
10	16	20	60
9	7	11	78
8	11	14	103
7	11	25	139
6	24	41	204
5	18	32	254
4	8	21	283
3	29	29	341
2	19	27	387
1	7	8	402

* Based upon 159 districts having provisions at one or more levels.

GRAPH 2.
CUMULATIVE GROWTH OF PROVISIONS FOR GIFTED



How does the percentage of programs for gifted through Ohio compare with programing in other areas of special education? These comparisons are shown in Figure 1.

Although we can assume incidence figures for the gifted and educable mentally retarded to occur at approximately the same frequency distribution, the wide gap in current programing for the gifted is evident.

FIGURE I

Programs For The Gifted Compared With Programs In Other Areas Of Special Education

Educable Mentally Retarded (50-80 I.Q.)	59%
Gifted	23%
Physically Handicapped	8%
Learning and Behavior Disorders	5%

Apparently more school districts are providing special educational programs for the educable mentally retarded than the gifted. Two factors may be involved in the greater focus of attention upon the mentally limited group. First, state finances have been provided since 1945. Even through the historical development of both programs were parallel until state funding of the EMR program, the impetus gained through the establishment of programs and the resultant increase in the number of teacher training institutions necessary to maintain an identifiable program has never been overcome. The second factor may be community awareness of the problem. The child whon cannot function normally in the mainstream of a general education is apparently more of a community problem since he may become a "dropout" and a burden upon the taxpayer with his limited ability to sustain himself in the working world. The plight of the gifted child may never reach the intensity of public awareness which has been evident with the physically and mentally handicapped, and more recently the socially disadvantaged and learning and behavior disordered child.

CHAPTER VIII

CORRELATES OF PROVISIONS BASED UPON DEMOGRAPHY

Enrollment figures of school districts with provisions for the gifted show a direct positive relationship between size and provision. As anticipated extremely small districts with fewer than 500 students have established no provisions for the gifted. Although districts having below 3,000 enrollment account for 75 percent of those districts responding, only 12 percent have provisions for the gifted. All districts above 15,000 enrollment have provisions. Table 3 dramatically emphasizes enrollment as a critical factor in the frequency of provisions in Ohio.

TABLE 3

PERCENTAGE OF SCHOOL DISTRICTS WITH PROVISIONS FOR THE GIFTED BASED UPON ENROLLMENT OF DISTRICT

ENROLLMENT	NO. REPORTING PROVISIONS	NO. DISTRICTS IN STATE	PERCENTAGE WITHIN RANGE
25,000 & Above	7	7	100
20,000-24,999	3	3	100
15,000-19,999	5	5	100
10,000-14,999	10	13	77
7,000- 9,999	11	20	55
3,000- 6,999	60	141	42
2,500- 2,999	14	45	31
2,000- 2,499	16	66	24
1,500- 1,999	10	97	10
1,000- 1,499	15	123	12
500- 999	8	120	9
Less than 500	0	69	0

Can the typical school district afford programs for the gifted? Logically we would assume that costs per pupil expenditures would show a direct positive relationship as enrollment data had shown. Yet comparative mean costs per pupil indicated little differences between mean costs for those districts with or without programs. These paradoxical results are displayed in Table 4.

TABLE 4

COMPARATIVE MEAN COST PER PUPIL IN DISTRICTS WITH OR WITHOUT PROGRAMS FOR THE GIFTED*

CITIES	
With Programs	$454.42
Without Programs	412.67
LOCALS	
With Programs	424.79
Without Programs	386.10
EXEMPTED VILLAGES	
With Programs	410.38
Without Programs	411.10
TOTAL	
With Programs	438.98
Without Programs	409.43

* Based upon the Annual Report of Division of Computer Services: Statistical Reports.

OHIO DEPARTMENT OF EDUCATION, 1966.

It is generally assumed that the districts in which tax valuation is above the mean have greater opportunity to provide added services for exceptional children, yet in all instances mean tax valuation in the three types of Ohio districts was less than that in districts not providing programs for the gifted. Table 5 emphasizes the disparity between the districts with or without programs.

TABLE 5

MEAN TAX VALUATION PER PUPIL IN DISTRICTS WITH OR WITHOUT PROGRAMS FOR THE GIFTED

CITIES	MEAN TAX VALUATION
With Programs	14,784.36
Without Programs	15,860.56
All Districts	15,303.22
EXEMPTED VILLAGES	
With Programs	11,918.34
Without Programs	12,377.87
All Districts	12,281.13
LOCALS	
With Programs	12,392.55
Without Programs	13,584.54
All Districts	13,431.42

We might account for this illogical similarities if extremes are profoundly effecting the mean. This possible source of bias is taken into account by ranking the tax valuations into upper, middle, and lower thirds which clarified the obvious effect of sev-erai districts having extremely low tax valuations.

The data in Table 6 clearly highlight the relationship between tax valuation per pupil and school district provisions for gifted children. As anticipated, the higher the ranking, based on tax valuation, the greater the likelihood of provisions for gifted chil-dren within the district.

TABLE 6

RANKING WITHIN THIRDS BASED ON TAX VALUATION PER PUPIL IN DISTRICTS WITH PROGRAMS FOR THE GIFTED

RANKING WITHIN	NUMBER	PERCENT
CITIES		
Upper Third	33	40
Middle Third	30	37
Lower Third	19	23
EXEMPTED VILLAGES		
Upper Third	7	58
Middle Third	3	25
Lower Third	2	17
LOCALS		
Upper Third	34	52
Middle Third	17	26
Lower Third	14	22

We would assume that programs for gifted children would cost in excess of the regular school program. Although median teacher-pupil ratios are not significantly different (see Table 20) additional materials and reduced ratios in several districts would point up the need for additional expenditures. Table 7 indicates that slightly more than one-third of the schools identifying the gifted (58) reported that they spend money for these programs in excess of the cost for the general educational programs at one or more levels.

TABLE 7

MEAN EXCESS COST OF PROGRAMS FOR THE GIFTED IN ALL DISTRICTS

Grade Level		
K-6	7 & 8	9-12
116.20	252.80	160.58
(N 49)	(N 52)	(N 58)

Considering the high variability of reported excess costs these means should be considered merely a gross approximation in comparison with a specific programing approach. Obviously, districts providing highly individualized provisions had much larger expenditures than those providing enriching experiences.

CHAPTER IX

IDENTIFICATION AND SELECTION

In theory, special provisions for gifted students are established after a district becomes aware that the unique characteristics of these children deviate markedly from the norm in terms of exceptional abilities or talents which cannot adequately be provided in the general educational program. In practice, however, selection of students may be determined by the focus of the programs which have been established. These demands, rather than a definition of giftedness, in programs such as accelerated or honors courses, very often eliminate gifted students who may be low achievers and low intellectual levels for admission to the programs.

Criteria Used

Identification procedures vary considerably among school districts. However, four out of five districts use at least four or more criteria for identification. Nearly one half of all districts use I.Q scores, school marks, achievement test scores, and teacher opinion as criteria; over two thirds of the districts use individual standardized tests of mental ability in their identification procedures with the vast majority of these same districts using group tests as screening instruments.

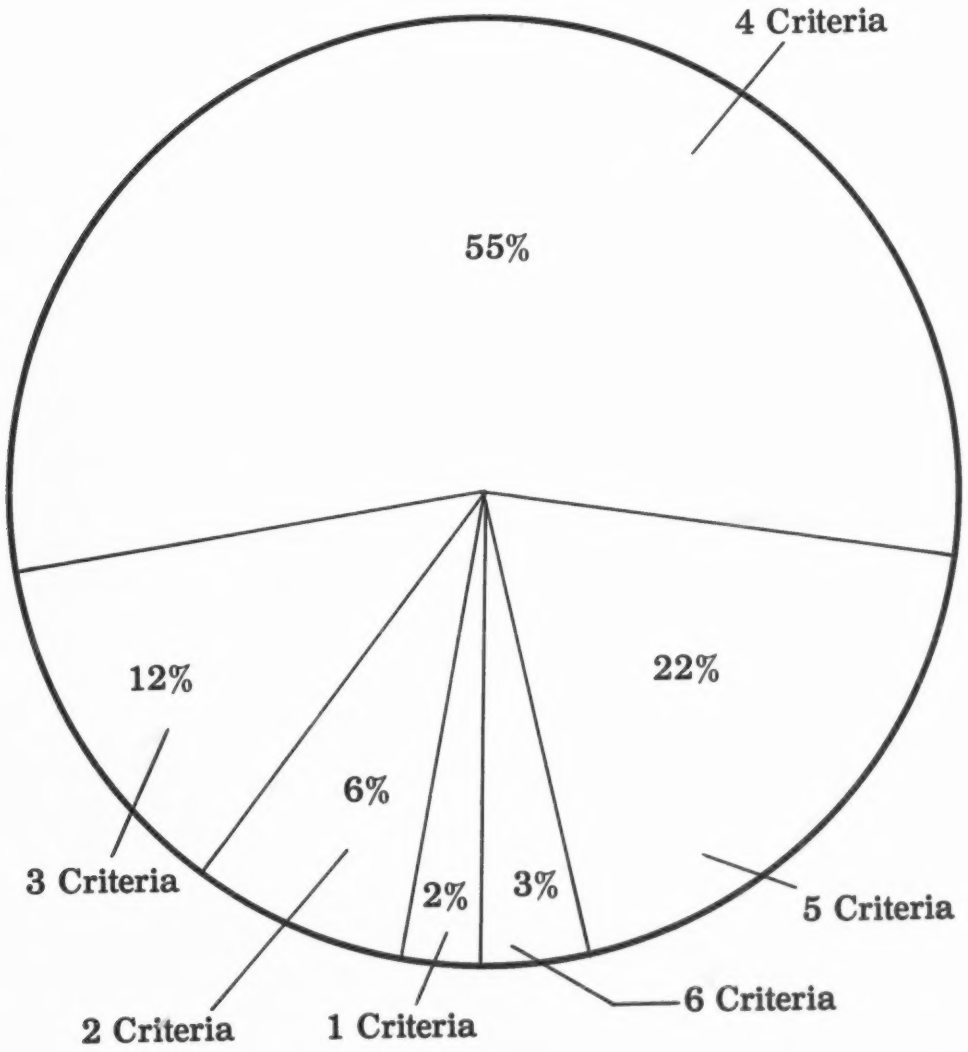
Percentages of specific criteria in Table 8 show the wide use of intelligence testing. Teacher opinion is frequently considered in identifying gifted students—only one district fewer than the number using I.Q. tests as a criterion.

Most practioners in this field agree that judicious use of both objective and subjective criteria will improve our predictability of identifying gifted children. Teacher judgment based upon a knowledge of known qualitative characteristics of gifted children should improve our ability to identify the gifted especially when we also make use of the objective intelligence test measures.

Table 9 shows that the majority of districts reported the use of multiple criteria. Only 4 districts repored the use of subjective criterial alone—school marks, teachers opinion, and pupil opinion. Most districts using subjective criteria also considered objective data such as standarized intelligence and achievement tests. There is a decided trend toward the use of multiple criteria as shown

GRAPH 3.

NUMBER OF CRITERIA USED IN IDENTIFYING GIFTED STUDENTS*



* Use of individual, Group or both I.Q. tests is considered as a single criterion.

TABLE 8
CRITERIA USED FOR IDENTIFYING GIFTED STUDENTS

	No. of Districts	%
I.Q.	150	94
Individual I.Q.	98	
Group I.Q.	126	
Both Individual and Group I.Q.	71	
Teacher Opinion	149	94
School Marks	144	91
Achievement Tests	123	77
Aptitude Tests	54	34
Pupil Opinion	12	8

by comparison with the 1960 survey. Currently, 25 percent of the districts use five or more criteria compared with 4 percent in 1960. Virtually all schools report the use of intelligence test results. Table 10 contrasts the number of criteria reported in the current survey and the 1960 survey.

Use of Intelligence Tests

Ninety-four percent of the responding districts indicated that a standarized examination of mental ability was used within the identification procedures.

Obviously, the decision to use intellectual assessment, whether an individual or group test, has an effect upon the concept of giftedness within a school system. Not only do the scores differ among group tests but divergence is also found among individual tests within series, such as the Binet and Wechsler, and between these tests. It is not uncommon to find widely diverse group I.Q. from tests to test or in the instance of school wide testing programs, from various administrations of the same test.

These complicating factors perhaps influence the use of additional criteria for selection. As we saw in Table 9 virtually all districts utilizing intelligence tests also consider other criteria.

TABLE 9

CRITERIA USED FOR IDENTIFICATION OF GIFTED CHILDREN

No. of Criteria	Types of Criteria	No. of Districts Responding	% of Districts Responding (Rounded)
1	I.Q.	3	(2)
	Ach. Test	1	
2	I.Q., Teach. Op.	4	
	I.Q., Apt. Test	3	(6)
	I.Q., Ach. Test	1	
	Teach. Op., Ach. Test	1	
3	I.Q., School Marks, Teach. Op.	9	
	I.Q., School Marks Ach. Test	1	
	I.Q., Teach. Op., Ach. Test	2	
	School Marks, Teach. Op., Pup. Op.	4	(12)
	School Marks, Teach. Op., Ach. Test	2	
	School Marks, Apt. Test, Ach. Test	1	
4	I.Q., School Marks, Teach. Op., Apt. Test	12	
	I.Q., School Marks, Teach. Op., Ach. Test	74	(55)
	I.Q., School Marks, Teach. Op., Pup. Op.	1	
5	I.Q., School Marks, Teach. Op., Pup. Op., Ach. Test	33	(22)
6	I.Q., School Marks, Teach. Op., Pup. Op., Apt. Test, Ach. Test	5	(3)

TABLE 10

Current Survey			1960 Survey	
Number of Criteria	%	Cumulative %	%	Cumulative %
6	3	3	0	0
5	22	25	4	4
4	55	80	64	68
3	12	92	16	84
2	6	98	11	95
1	2	100	5	100

Approximately 79 percent of those schools using intelligence tests also utilize group I.Q. tests.

Nearly one-half (45%) indicated the use of both individual and group tests. About two-thirds use individual tests, with the choice of the test dependent upon the school psychologist.

TABLE 11
USE OF INDIVIDUAL TESTS OF MENTAL ABILITY*

Name of Test	%age
Both Stanford-Binet and Wechsler Scales	51
Stanford-Binet Scales	36
Wechsler Scales	11
Miscellaneous	2

* 98 Districts

While the Binet scales are most frequently used individual tests (36 percent), in 51 percent of the districts either the Binet or the Wechsler Scales is used. This may be attributed to the more effective use of the Wechsler with older, brighter students.

The selection of group testing varies considerably. Table 12 lists the group tests used in order of reported frequency. It should

be noted that this table refers to frequency of use and not to the number of districts employing these tests. Several districts use several group tests, frequency at various academic levels.

TABLE 12

USE OF GROUP INTELLIGENCE TESTS

Name of Test	No. of Times Reported
California Test of Mental Maturity	86
Otis Series	51
Lorge-Thorndike	35
Henmon-Nelson	24
Kuhlman-Anderson	17
SRA-Primary Mental Abilities	3
Pintner-Cunningham	2
Cooperative School and College Ability Tests (SCAT)	2
Terman-McNemar	1

Of these districts using I.Q. as one criterion for identification nearly two-thirds have established a minimum or cutoff score. The 56 schools remaining (37 percent) have not set an absolute lower limit.

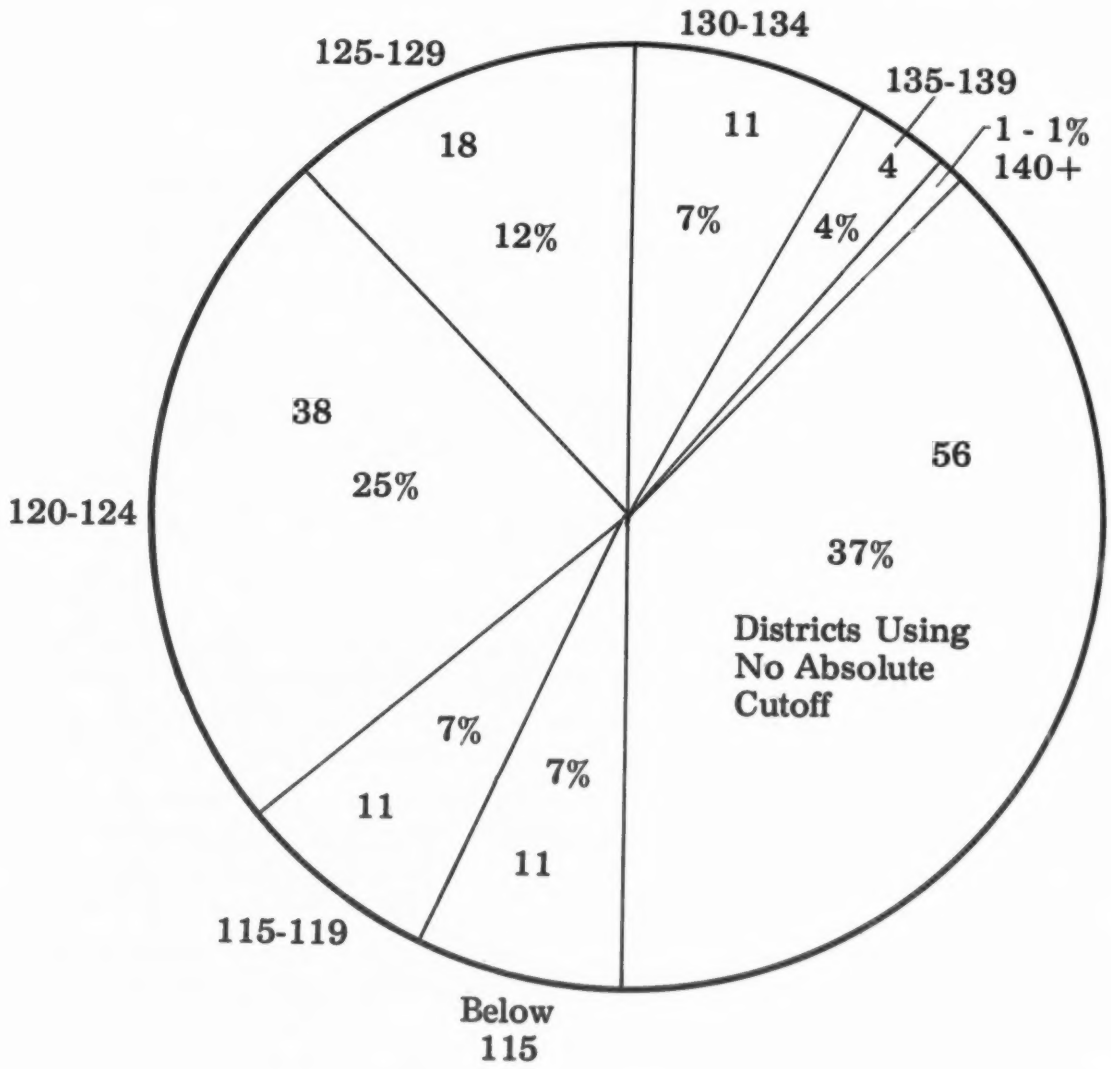
The most frequently mentioned cutoff falls within the 120-124 range, considered by many researchers to fall below the I.Q. range generally considered to be gifted (based upon the normal curve of distribution). The reader should be aware that the graph below is based upon a composite of scores from several group and individual tests. At best it shows only a gross representation of relative comparisons.

When children are identified with individual tests child-study services within the school system are used. Is the availability of child-study services a factor in the development of provisions for the gifted? This relationship was explored by comparing districts having gifted provisions and these services with those having provisions but where child-study services were not available.

The relationship between programs and the availabilty of services should be high, since identification of children for such special programs, if done properly, calls for specialized psychological services. The above expectation was confirmed. Districts with provisions for the gifted, contrasted with districts having no pro-

GRAPH 4.

I.Q. CUTOFF SCORES USED IN IDENTIFICATION OF GIFTED STUDENTS



grams, are more likely to have child-study services. The one factor which might influence the availability of child-study services is the guideline established by the Department of Education that school enrollment must exceed 3,000 in order to obtain full unit funding. This would influence the numbers of school psychologists employed in the smaller districts of less than 3,000 unless a cooperative effort of several smaller districts provided services for more than 3,000 students which would be funded as a unit of child-study services.

TABLE 13

AVAILABILITY OF CHILD-STUDY SERVICES IN DISTRICTS WITH OR WITHOUT PROGRAMS FOR THE GIFTED

	NO. DISTRICTS IN STATE	PERCENT DISTRICTS WITH CHILD-STUDY SERVICES	NO. PROGRAMS WITH CHILD-STUDY SERVICES
CITIES			
With Programs	82	58	71
Without Programs	81	31	38
EXEMPTED VILLAGES			
With Programs	12	4	33
Without Programs	42	4	9
LOCALS*			
With Programs*	65	50	77
Without Programs*	427	190	44

* Assuming availability of Child-Study Services in local districts within county service areas.

Use of Additional Tests

Table 14 summarizes the frequency of use of achievement and aptitude tests. Only those tests repored in at least 5 instances are included. No schools repored the use of tests of creativity, possibly due in part to the subjectivity and complexity of scoring.

TABLE 14

USE OF ACHIEVEMENT AND APTITUDE TESTS

Type	Name of Test	No. of Times Reported
Achievement	Iowa Tests of Basic Skills	61
	Stanford	29
	Ohio Survey Test	24
	Metropolitan	16
	California	13
	Co-op	5
Aptitude	Differential Aptitute Test (DAT)	25
	Iowa Algebra Aptitude	7

CHAPTER X

EDUCATIONAL PROVISIONS

Administrative and Curricular Provisions

A summary of administrative provisions for the gifted shows the emphasis placed upon the use of grouping by ability.

Table 15 summarizes the extent of providing enrichment activities and the methods of grouping used within the regular classroom. Enrichment activities suggest an increase in the breadth and depth of the teacher planned learning experiences. Since it is generally considered that the elementary teacher has a greater opportunity to enrich activities we might expent this probability to conform to these data. The data clearly indicate the extent of these enriching activities with the frequency being greatest in the senior high schools. The wide use of complete grouping at the junior high school is not surprising in view of a current tendency to place gifted students, particularly those with high achievement, into high ability sections. The high school, with its self-selecting grouping in courses such as physics and chemistry, will attract generally only the highest ability students. This

TABLE 15

METHODS OF GROUPING

	% Provisions Within Grade Levels			
	K-3	4-6	7&8	9-12
Providing enrichment activities within the regular classroom.	32	43	38	52
Grouping for part of day within the regular class.	25	24	13	19
Special grouping in another room in the academic areas of strength.	6	16	33	53
Grouping together in all academic subjects for entire day.	13	18	33	18

may account for the reduction of complete grouping at the high school level.

In terms of total use of grouping provisions, partial and complete grouping methods are used more frequently than enrichment methods in schools which have established provisions for their gifted students.

In the elementary grades special curricular provisions are most frequently those which allow the gifted to work beyond grade level by offering courses beyond normal requirements, grade skipping, and early entrance to kindergarten or first grade. The efficacy of the latter approach has resulted in rapid expansion in recent years. The 1962 study indicated that only 5 percent of the school districts in Ohio used this method of acceleration. These data suggest that 30 percent are now employing this opportunity for the child who is socially, emotionally, mentally, and physically mature to enter school at an earlier age.*

* Newly enacted legislation — which also fixes uniform first grade entrance age effective in 1969 — requires districts to provide a testing program for early entrance evaluation, or to adopt criteria by which testing from another source will be accepted.

TABLE 16
CURRICULAR PROVISIONS FOR THE GIFTED

Provisions	% Within Grade Levels			
	K-3	4-6	7&8	9-12
Early entrance to kdgn. or first grade.	30			
Grade skipping	15	12	5	1
Ungraded classes beyond primary level.		5	2	2
Compressing normal material into a shorter time.	6	6	13	11
Honors or advanced	4	9	36	73
Additional courses.	5	9	21	45
Providing subjects beyond normal grade level.	8	15	24	43

TABLE 16—Continued
CURRICULAR PROVISIONS FOR THE GIFTED

Provisions	% Within Grade Levels			
	K-3	4-6	7&8	9-12
Advanced Placement Program (College Entrance Exam. Board).				40
Work Study Programs for gifted.				7
Early admission to college.				20
Independent Study.				1
Seminars for gifted.			3	

AP Program
Early Admission
to College

Work Study
Programs

In the junior high schools the frequency of grade skipping drops appreciably and is virtually non-existant by senior high school. The emphasis of grouping at the secondary level is shown by the extensive use of honors or advanced sections, with this being the most prevalent provision in the senior high school.

One significant trend may be the interest in work-study programs for gifted students. Although currently used in only 7 percent of the programs there is an indication that it may continue to become an integral part of the possible elementary and secondary provisions for gifted students. The Advanced Placement program and early admission to college have also received increased attention. One-fifth of the high schools provide the opportunity for early admission to college.

The Advanced Placement Program

The participation in the Advanced Placement Program has doubled in Ohio since the 1962 study. Forty percent of the public

schools providing for gifted now give their able students the opportunity to study college-level course content while attending high school.

During the 1966-67 school year 2769 Ohio students in 171 public and parochial high schools participated in this national program sponsored by the College Entrance Examination Board.

The following table indicates the reported frequency of the various courses offered.

TABLE 17

The Advanced Placement Program
1966-67

Subject	No. of Times Reported
English	58
American History	28
European History	18
French	21
German	7
Latin	10
Spanish	12
Mathematics	49
Biology	23
Chemistry	30
Physics	20

EXTENSION PROVISIONS

Summer school, Saturday or evening programs have become an integral part of the provisions for the gifted, particularly in the city school districts. Table 18 summarizes these data.

TABLE 18

EXTENSION PROGRAMS

Saturday or Evening Programs at School

Percentage of Provisions Within Grade Levels

K-3	4-6	7-8	9-12
1	2	4	18

Saturday or Evening Programs on a College Campus

K-3	4-6	7-8	9-12
			11

Special Summer Programs

K-3	4-6	7-8	9-12
9	23	21	35

CHAPTER XI

EVALUATION OF PUPILS AND PROGRAMS

The degree of parental approval of programs for the gifted should be high in order for the program to be a positive influence within the motivational structure of the student. The extent of parental approval of programs was requested in this survey in terms of frequency of parental approval for placement of the child in the program. In 1962, 41 per cent of the school districts required parental approval prior to placement in the special program.

TABLE 19

Percentage of Districts Requiring Parental Approval

Type District	% Required	% Not Required	No Data
City	77	17	6
Local	32	28	30
Exempted Village	58	25	7
TOTAL	57	26	16

Table 19 indicates the trend toward a higher percentage of parental approval, particularly in the City Districts. Implicit in this response is the extent of parental involvement in programs for the gifted which may vary with the size and type of school district.

The survey requested data concerning teacher-pupil ratios within the districts reporting programs for the gifted. Table shows that the median teacher-pupil ratios do not differ significantly between the regular groups and those involved in the gifted at the various levels. Further analysis of these data yielded extreme variability in teacher-pupil ratios within gifted programs from a low of 1:5 to a high of 1.38. Those districts having small regular classes also show a positive linear relationship between these and the classes in the gifted program. The same relationship applies within systems having normally large classes. The gifted program teacher-pupil ratio was similarly nigh.

TABLE 20

Teacher-Pupil Ratio in Regular Classes

Grade Level	K-6	7 & 8	9-12
Median ratio	1:28	1:26	1:22

Teacher-Pupil Ratio in Gifted Programs Within the Same Districts

Grade Level	K-6	7 & 8	9-12
Median Ratio	1:28	1:25	1:22

The evaluation of students involves the dilemma of how to best report the progress of the students in these programs. Should the student be evaluated in terms of his own group?, the norm?, other students only?, his own potential? Ultimately any student evaluation must take into account the effect, not only of the gifted student, but the others within the school system. If higher standards for grading are used, will this create more significant problems with grade point average at the secondary level?, will it complicate the opportunity for college entrance or the possibility of a scholarship? The use of weighted grades or the same standards as those in regular classes also pose possible problems. Comparing the products of children below average with the gifted group creates a punishment for those of lesser ability. A fair method of evaluation of the gifted student is undoubtedly not a simple task but one requiring cooperative pupil, teacher, parent

TABLE 21

Frequency of Marking Provisions for Gifted Students

Type of Provision	Grade Level K-3	4-6	7 & 8	9-12	Total
Same standards as regular classes	38	51	49	46	184
Higher standards than regular classes	21	28	52	61	48
Weighted grades	—	—	8	40	48
Minimum grades assured	—	2	5	8	15
No grades given	1	2	—	—	3
Performance in relation to potential	1	1	1	1	4

evaluation. Table shows the frequency of the various procedures employed in evaluating gifted students. In the primary grades the trend appears to be in favor of evaluation in terms of the same standards as regular classes. At the junior and senior high school level gifted classes are frequently evaluated in terms of higher standards than the regular classes. Weighted grades and minimum assured grades are used sparingly below the senior high school level.

Evaluation of any program should be considered in terms of the goal established. The survey did not attempt to determine whether goals had been established or what types of program evaluations had been made. The districts were asked if a written evaluation study of the program had been made. The returns indicate that only 14 percent of the total districts have made a written evaluation of their programs. Table 22 shows the percentage of city districts having formal evaluations to be significantly greater than the other types of districts. The extent of evaluation in the City Districts may be due to the availability of specialized personnel.

TABLE 22

EVALUATION OF PROGRAMS

Districts Having Provisions for Gifted		Districts Having Formal Evaluations	Percentage Having Formal Evaluation
Type	No.		
Cities	82	19	23
Exempted Villages	12	1	8
Locals	65	2	3
TOTAL	159	22	14

CHAPTER XII

PROBLEMS IN EDUCATING THE GIFTED

The last section of the survey requested the districts to indicate problem areas encountered with their programs. A list of fifteen problems were developed after a review of the literature in this area. Problems were then ranked in order of frequency. Table 23 lists the problem areas.

TABLE 23

PROBLEMS IN EDUCATING THE GIFTED

RANKING BY PROBLEM AREA		NO. OF TIMES REPORTED
1.	Marking or Grading	90
2.	Pressures on Students	83
3.	Staffing	67
4.	Scheduling	64
5.	Financial	62
6.	Inadequate Facilities and/or Space	61
7.	Curriculum	60
8.	Identification of Students	52
9.	Class Size	46
10.	Parents	43
11.	Inadequate Materials	34
12.	Social Adjustment	30
13.	Community Pressure	20
14.	Transportation	14
15.	Community Apathy	7

It is not surprising to find marking or grading and pressures on students to be ranked 1st and 2nd in the survey. The emphasis placed upon programing at the secondary level and the variability in marking systems discussed earlier might account in part for these problems. It is worthy of mention that social adjustment, a frequent criticism of gifted programs, is ranked 12th. Since funding and inadequate facilities may relate to correlates of provisions among districts with or without programs summarized earlier, it is surprizing that they do not rank higher in frequency since certain areas of financing relate directly with the initiation of provisions for the gifted.

CHAPTER XIII

CONCLUSIONS AND IMPLICATIONS

The purpose of this survey was to determine the provisions for gifted children in Ohio's public schools. The investigation was undertaken during the 1966-67 school years and involved questionnaire data supplied directly by the school districts and various objective indices of enrollment and financial data provided by the Division of Computer Services within the Ohio Department of Education.

One-hundred-fifty-nine of the 690 districts responding had some provisions for gifted children. This compares favorably with the 232 districts having programs for the gifted reported in the Stephens (1962) study. The disparity in terms of percentage of districts reporting provisions (23 compared with 28) may be attributed largely to attrition within the smaller school districts and the consolidation of nearly 170 school districts during this period.

Twenty three percent of the school districts have some provisions for the gifted. There is a wide discrepancy among type of districts and provisions. The majority of City Districts have initated provision; about one-fourth of the Exempted Villages and about 13 percent of the Local Districts reported provisions.

Enrollment figures of districts having programs show a direct positive relationship between size and provision. School districts of fewer than 500 students have established no provisions for the gifted. Although three fourths of Ohio's districts have less than 3,000 enrollment only 12 percent have provisions for the gifted. All large districts above 15,000 enrollment have provisions.

Districts with programs ranking high in tax valuation tend to have provisions for the gifted rather than those merely having above average tax valuation. Costs per pupil do not, per se, appear to increase the likelihood that programs will be initiated. Variables such as socio-economic levels of districts and community pressures for programs were not explored due to the complexity of analysis and paucity of these data although these might be highly significant variables.

Identification

The relationship between programs and availability of child study or psychological services in the schools is positive since identi-

fication of child with individual psychological tests utilizes these services.

Of the 159 districts identifying gifted students four out of five use four or more criteria for identification. The most frequent I.Q. cutoff score falls within the 120-124 range. Teacher opinion is used in 149 school districts to aid in identification with nearly one half of all districts reporting school marks and objective criteria such as I.Q. and achievement tests as additional criteria.

Academic achievement is frequently used along with assessment of verbal ability and school marks as multiple criteria. Incomplete data were received concerning cutoff scores on achievement tests. Partial data strongly suggest that many schools consider the student who is not achieving beyond grade level on a standardized test to be a poor risk in a gifted program. The ubiquitous "underachiever" who has demonstrated high abiiity on an intelligence test but little in terms of performance in school is bypassed—frequently for the high achieving 125 I.Q. child.

The use of achievement tests as one criterion for the four most prevalent criteria (I.Q., marks, teacher opinion, and achievement) has decreased from 64% in 1962 to 46% in the current survey. The apparent awareness of the increased emphasis on potential rather than achievement is a highly positive finding.

Our most recent concern for the creative and undetected gifted groups present a future challenge toward more sophisticated methods of identification. The undetected group frequently achieve and measure normal yet possess other qualitative and quantitative elements of giftedness.

Both these and the creative group may go undetected in Ohio. Apparently no districts in Ohio include assessment of creativity with the exception of a handful of federally funded experimental projects.

In summary, data used in the selection of students for gifted programs imply that many districts use operational definitions of giftedness. There is a tendency to identify and select students to place into established programs rather than continually reevaluating programs to conform to the needs of the gifted population. For schools having comprehensive programs for *all* gifted students the problem involved would be minor. Unfortunately the extensive use of achievement criteria in the many districts reduced the likelihood that the underachieving gifted child could be admitted to the program in many districts. One positive finding is the

reduction in the use of high achievement for entry into gifted provisions since the previous survey.

Administrative and Curricular Provisions

The survey indicates that administrative grouping provisions are most extensively found in ability grouping within academic areas of strength. Greater than one-half of the districts reporting these provisions in grades 9 through 12. Complete grouping in all academic areas is more prevalent in grades 7 and 8. Enrichment within the regular classroom, the most frequent provision at all grade levels with the exception of the ability grouping in grades 9-12, varies from one-third to one-half of total administrative provisions for the gifted.

Curricular provisions including acceleration, ungraded programs, advanced sections, individualized compressed courses, and other methods which allow the student the opportunity to work beyond normal grade level, increase in a direct linear relationship from the lower elementary through the senior high school. Honors or advanced courses and the advanced placement program are the most frequent provisions. Seminars and independent study programs which require high cost and greater program flexibility are rarely provided. Work-study programs have expanded rapidly during the last ten years. This may signal the beginning of a trend toward providing opportunities in areas of scientific and creative pursuits which in the past were limited to the vocational areas of the regular school program.

The frequency of extension provisions such as summer, after school, evening, and college campus programs show a direct positive relationship to grade level with over one-third of the districts providing for summer programs at the secondary level.

Do these programs differ significantly from the general education program? There is little doubt that many schools have established provisions that encompass students of high academic potential and provide for students in special areas of talent. However, few school districts report a comprehensive program which includes all potentially gifted students at the elementary, junior, and senior high school levels.

Ideally, there should be comprehensive provisions established for at least three groups of these potentially gifted students.

The Stephens (1962) survey listed these needs which appear to be as pertinent to the current needs in the area of gifted programs as they were then.

1. There should be provisions for the high achieving academically gifted students. These provisions may include accelerated courses, enrichment activities and vocational and educational counseling.
2. Provisions should be available for all low achieving students of high academic potential. Enrichment activities, group and individual counseling (possibly on a long term basis), parental counseling, and remedial instruction are all possible provisions for this group.
3. The schools should have provisions available for academically gifted students with special needs. These may include financial, physical, emotional and family problems. Some of the children in this group may also be contained in the two previous categories.

Evaluation and Other Factors

It would appear that evaluative aspects of any educational program would be as integrally involved as would establishing objectives or operating the program. Yet only 14 percent of the districts have any formal evaluation procedure. Evaluation of students, considered to be the primary problem area reported, showed that students are frequently evaluated using the same system of evaluation employed in the general educational program.

It should be essential that districts establish methods of program evaluation in order to determine whether their stated objectives are being met. If student evaluation is a serious problem steps should be made to minimize the apparent inequities in the existing grading system.

Summary

Several conclusions and implications of the current survey were discussed. Apparent needs in the areas of identification and selection, educational provisions, evaluation and other factors were presented.

Unanswered Questions

Surveys frequently raise more problems or questions which need further study than they answer. Several questions which remain unanswered following both this survey and the earlier Step-

hens (1962) survey are also posed by Renzulli and Vassar (1967) indicating that the following concerns are not indigenous to Ohio:

1. To what extent do programs for gifted students differ from the general educational program?
2. Should the bright, high achiever receive the same program as the high potential gifted student?
3. Should differential programs be initiated for the highly gifted?
4. What methods of program evaluation are currently employed by school districts having provisions for the gifted?
5. In what ways do excess costs of programs differ among the various provisions?
6. Do the school districts which practice enrichment employ systematic methods?
7. To what extent should non-cognitive factors such as interest, aptitude and creativity be involved in program for the gifted?
8. What are the advantages of early identification of the gifted as it relates to placement of students in secondary programs?
9. What would be the impact of program development if in-service training of teachers focused upon the educational needs of the gifted?

The decade of "Sputnik plus 10" has presented a challenge to the schools of Ohio. The information gathered in our research efforts during this period should be considered only the first step in the confrontation of this challenge. It should be accepted by those school personnel who are truly concerned with the development of sound, viable programs for these students with the capacity for extraordinary achievement in our changing world.

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